

CLAIMS

I claim:

1. A functional toothbrush, comprising:

rows each having needle-shaped bristles (3) set in a longitudinally elongate groove (1) and longitudinally arranged along an outer edge of a head part (11) of a toothbrush body (10); and

other rows each having needle-shaped bristles (3) set in a latitudinally elongate groove (1') and longitudinally arranged on a central portion of the head part (11) of the toothbrush body (10),

wherein a length of each of the needle-shaped bristles (3) set in the outer edge of the head part (11) is longer than a length of each of the needle-shaped bristles (3) set in the central portion of the head part (11) by 1.5-3.5mm, and each of the elongate grooves (1, 1') has an elliptical shape.
2. The functional toothbrush according to claim 1, wherein the needle-shaped bristles (3) set in each of the elongate grooves (1, 1') comprise various bristles having different end points from 0.01 to 0.03mm in thickness and different tapers from 5 to 12mm in length.
3. The functional toothbrush according to claim 1, wherein each of the elongate grooves (1, 1') has a minor axis from 1.6 to 2.5mm in length and a major axis from 2.5 to 5.0mm in length.
4. The functional toothbrush according to claim 1, wherein each of the needle-shaped bristles (3) is set in each of the elongate grooves (1, 1') after being folded such that a height difference of 0.5-1.5mm exists between both ends of the folded needle-shaped bristle (3).
5. A method for manufacturing a toothbrush provided with rows each having needle-shaped bristles (3) set in a longitudinally elongate groove (1) and longitudinally arranged along an outer edge of a head part (11) of a toothbrush body (10), and other rows each having needle-shaped bristles (3) set in a latitudinally elongate groove (1') and longitudinally arranged on a central portion of the head

part (11) of the toothbrush body (10), wherein each of the elongate grooves (1, 1') formed on the head part (11) has an elliptical shape, and the needle-shaped bristles (3) are set such that the length of each of the needle-shaped bristles (3) set in the elongate groove (1) placed on an outside part of the head part (11) is longer than the length of each of the needle-shaped bristles (3) set in the elongate groove (1') placed on an inside part of the head part (11) by 1.5-3.5mm.

6. The method for manufacturing the toothbrush according to claim 5, wherein the needle-shaped bristles (3) set in each of the elongate grooves (1, 1') comprise various bristles having different end points from 0.01 to 0.03mm in thickness and different tapers from 5 to 12mm in length.

7. The method for manufacturing the toothbrush according to claim 5, wherein each of the elongate grooves (1, 1') has a minor axis from 1.6 to 2.5mm in length and a major axis from 2.5 to 5.0mm in length.

8. The method for manufacturing the toothbrush according to claim 5, wherein each of the needle-shaped bristles (3) is set in each of the elongate grooves (1, 1') after being folded such that a height difference from 0.5 to 1.5mm exists between both ends of the folded needle-shaped bristle (3).